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P. 03

A1
PATENT
Customer No. 22,852
Application No. 09/881,748
Attorney Docket No. 04853.0074-00000

comparing the DNA methylation pattern of the cell, tissue or nucleus with the
DNA methylation pattern of the one or more known types of cell, tissue or
nucleus,
thereby identifying the cell, tissue or nucleus.

A2
3. (Amended) A method of identifying one or more gene regions
characterizing a type of cell, tissue or nucleus, comprising:
analyzing the DNA methylation pattern of one or more gene regions of two or
more types of cell, tissue or nucleus, and;
comparing the DNA methylation pattern of the one or more gene regions of two
or more types of cell, tissue or nucleus,
thereby identifying the one or more gene regions characterizing the type of cell,
tissue or nucleus.

Please cancel claim 2, without prejudice or disclaimer.

Also, please add the following new claim:

A3
5. (New) A method of assessing the development of a certain type of cell,
tissue or nucleus comprising:
identifying the DNA methylation pattern of one or more known types of cell,
tissue or nucleus, and;

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identifying the DNA methylation pattern of an unknown cell, tissue or nucleus,
and;

A³
comparing the DNA methylation pattern of the one or more known types of cell,
tissue or nucleus with the DNA methylation pattern of the unknown cell, tissue or
nucleus, to determine whether the unknown cell, tissue or nucleus has the same
DNA methylation pattern as the one or more known types of cell, tissue or
nucleus,

thereby determining whether the certain type of cell, tissue or nucleus is present.

REMARKS

Applicants have amended claims 1 and 3, as set forth in the attached Appendix,
to recite more standard claim language in more standard claim format. Also, Applicants
have added new claim 5 and cancelled claim 2, without prejudice or disclaimer.

The new and amended claims are supported by the originally-filed claims and the
specification, and thus present no issue of new matter. Specifically, amended claim 1
recites "analyzing the DNA methylation pattern" of a cell, tissue or nucleus and
comparing it with that of one or more known types in order to identify the cell, tissue or
nucleus. This finds direct support in the specification at page 4, for example, which
describes "analyzing ... the presence or absence of methylation in specific parts of
DNA" (lines 7-10), and comparing "methylation patterns" of various cells (line 19), in
order to "identify a given cell" (line 29).

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